

CLAIMS

1. A planar antenna assembly mounted on a substrate (306; 410), said assembly including a monopole element (302; 402) and at least one parasitic element (304; 404,  
5 406) grounded to an adjacent ground plane and located proximate the monopole element (302; 402), characterised in that the assembly includes a planar conductive member (310; 412) adapted to function as a signal feed for the antenna.
2. An assembly according to claim 1, wherein the conductive member (310; 412) is  
10 located on a reverse side of the substrate relative to the monopole element.
3. An assembly according to claim 2, wherein the conductive member underlies at least a portion of the monopole element (302; 402).
- 15 4. An assembly according to claim 3, wherein the conductive member (310; 412) underlies a portion of the monopole element (302; 402) adjacent the ground plane and a portion of a ground plane (28).
5. An assembly according to claim 3 or 4, wherein the conductive member (310;  
20 412) further underlies a part of the, or each, grounded member.
6. An assembly according to any preceding claim, wherein the conductive member is a conductive metallic patch (310).

7. An assembly according to any preceding claim, wherein the conductive patch (310) is electrically coupled to a feed connector (314).

5 8. An assembly according to any one of claims 1 to 7, wherein the conductive member corresponds to the feed connector (412) of the antenna.

9. An assembly according to claim 8, wherein the feed connector is a SMA connector.

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10. An assembly according to any preceding claim, wherein the grounded element (304) is substantially rectangular with its long axis extending substantially parallel to the monopole element (302).

15 11. An assembly according to any one of claims 1 to 9, wherein the, or a, grounded element (404, 406) extends from a ground plane towards the monopole element (402).

12. An assembly according to claim 11, including a second grounded element (406) extending from the ground plane (28) towards the monopole element (402).

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13. An assembly according to claim 12, wherein the first and second grounded elements (404, 406) are of different lengths.

14. An assembly according to claim 12 or 13, wherein the first and second grounded elements (404, 406) extend at different angles in a direction towards the monopole element (402).
- 5 15. An assembly according to any preceding claim, wherein the monopole element is provided with a waist portion (408).
16. An assembly according to any preceding claim, wherein the monopole element (302; 402) is tuned to operate in a frequency band of substantially 880 MHz to 2,500  
10 MHz.
17. An assembly according to any preceding claim, wherein the monopole element (302; 402) is tuned to operate in a band of frequencies covering the GSM and Bluetooth/IEEE 802.11b bands.
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18. An assembly according to any preceding claim, including switching means operable to switch between a plurality of sub-bands within the operating band of the monopole element (302; 402).
- 20 19. An assembly according to claim 20, wherein the switching means is operable to provide substantially continuous operation in the or a wireless networking band and selective operation in other wireless bands.

20. A computing or information device including an antenna assembly according to any preceding claim.